#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-021862 Address: 333 Burma Road **Date Inspected:** 16-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Zhou Zhong Hai No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segments

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Cross Beam 17

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-017-004, Side Panel to Bottom Panel hold back weld. The welder is identified as #067752 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-2G (2F)-FCM-repair-1 for WR20414.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-017-001, Side Panel to Deck Panel hold back weld. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-4G (4F)-FCM-repair-1 for WR20415.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-015-001, Side Panel to Deck Panel hold

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back weld. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-4G (4F)-FCM-repair-1 for WR20416.

Segment 12CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated FB3091-001-014, Floor Beam stiffener at panel point 115.5. The welder is identified as #041713 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

Segment 12AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3012-095, pad eye at FL3 web panel point 110. The welder is identified as #037743 and was observed welding in the 4F (overhead) and 3F (vertical) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1 and WPS-B-P-2113-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3012-111, FL3 web to Deck Plate. The welder is identified as #037743 and was observed welding in the 4G (overhead) using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Li Yang and Zhang Qiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 12AE

This QA Inspector observed the removal of tack welds by grinding from the Side Plate at panel point 110 after Suspender Bracket fit up.

Segment 13AW

This QA Inspector observed back gouging of the Side Plate to Bottom Plate longitudinal splice at locations previously inaccessible due to jig placement, counter weight side.

Segment 13AE

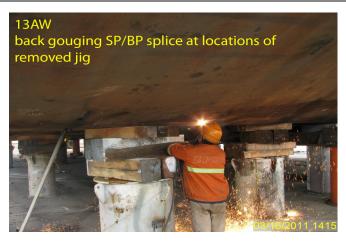
This QA Inspector observed segment 13AE was brought to the OBG Trial Assembly yard from bay 14.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## **Summary of Conversations:**

No relevant conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez, Dan	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer